

**MODIS Technical Team Meeting**  
**Thursday, March 15, 2001**  
**3:00 PM**

Vince Salomonson chaired the meeting. Present were Steve Kempler, Michael King, Dorothy Hall, Bob Murphy, Skip Reber, Mike Roberto, Bill Barnes, Ed Masuoka, Sol Broder, Chris Justice, Wayne Esaias, with Rebecca Lindsey taking the minutes.

## 1.0 Schedule of Upcoming Events

- Terra Cloud Mask Conference  
University of Wisconsin-Madison May 8-9, 2001
- NASA Ocean Color Science Meeting  
San Diego, CA May 21-24

## 2.0 Meeting Minutes

## 2.1 Instrument Update

Roberto reported that on March 9 the MODIS Space View Door (SVD) latches failed during a dry run of the spacecraft interface test at TRW. One of the two latches did unlatch, but paraffin wax leaked from each latch. The wax was cleaned up, and additional checks are being done to assure the clean up is complete. Failure has been traced to the use of the wrong tool, which was too short, to reset the latches. This resulted in the latches being activated from incorrect reset positions. A couple of tools had been used with each latch, but only one size tool was proper for the reset operation.

The two latch assemblies for the SVD will be removed from the instrument and sent to Raytheon/Santa Barbara Remote Sensing Tuesday, March 20. Removal is straightforward, including disconnecting an electrical connector. Raytheon will remove the latch from each assembly and replace it with a qualified spare. The level of retest of each latch assembly at Raytheon is being determined. From now on, only one size tool will be used for the latches. The other tools are being returned to SBRS. Mechanism procedures are also being reviewed and updated. At this time, the impact at TRW for this failure and recovery appears small.

At the last meeting, Roberto reported on a command processor (CP) reset, and it now appears that it was a standard command processor reset from the spacecraft and not a MODIS issue. Checks will be made to determine if there

have been any other MODIS CP resets at spacecraft level integration. TRW will try to duplicate the condition under which the reset occurred later this week. Also, it has been determined why the first command to run macro 4 to change the blackbody set point had no effect on MODIS. The command was not sent to MODIS by the spacecraft.

## 2.2 General Discussion

Salomonson reported that NDVI results from Alfredo Huete indicated that geolocation may have more error than previously thought. Also, Salomonson reported that Diane Wickland had indicated she was interested in getting a briefing on MODIS data processing. Jim Dodge will be unavailable at the same time, so there will have to be another briefing for him. The group discussed who should present and what topics should be covered. The goal of the presentation is to provide enough information on the complexity of MODIS data processing so that they (Headquarters: J. Dodge with help from D. Wickland) can write the NRA knowledgeably. The group decided that the time should be divided between Masuoka, Kempfer, Guenther, and Esaias, who would represent SCF component of processing. We need to show the whole flow, making sure the presentation conveys the level of effort required for the maintenance function of MODIS processing, which includes algorithm evolution and validation. Salomonson indicated he would let the team know when Wickland would be available, and that it could be early next week.

## 2.3 GES DAAC Update

Kempfer reported that they finished another full week of data, in addition to filling in days 41, 44, and 45. They are currently running about three days behind the leading edge of the data stream. Kempfer wanted to make clear that he only reports a week "complete" when there are no holes in the data for that week. The GES DAAC is processing very close to real time, but if there were holes in the data from previous days, he would not report those weeks to be complete yet. He wanted to make sure this was not interpreted as their having several weeks of backlogged data still to be processed. Kempfer also reported that at the time of the meeting, the DAAC was experiencing some unexpected downtime in the archive.

## 2.4 SDST

Masuoka reported on a telecon he had participated in discussing the allocation of the funds that Congress had allocated to solving Terra data problems within the

ECS. In the telecon, they agreed on what the MODIS priorities were, with the main goal to be to bring the GES DAAC up to 4x ingest and archive capability. (The money is only to be spent within ECS; it cannot be used for ESIPs or MODAPS.) Masuoka reported that he would be delivering information to Jon Ranson on Monday, who will try to integrate our needs and wants with other instruments. He reported that Justice suggested that we hold off on requests for distribution improvements, since the MODIS team may need to draft a white paper on the issue to refine our position on distribution issues.

Murphy asked whether distribution is still about 10%, and Kempler indicated that it was. He reminded the group of the informal study they conducted at the AGU, which indicated that product maturity, and data tools were commonly cited as reasons for not ordering MODIS data.

Masuoka reported that the Origin 3000 machine is being built, and may be shipped in 2-3 weeks. He is working with the air conditioning staff to ensure that the area is adequately cooled. MODAPS is currently processing January 8 on V1. Salomonson asked when MODAPS would be caught up with the DAAC, and Masuoka replied that they still planned to be caught up in time for the June reprocessing.

## 2.5 Atmosphere Update

King reminded the group of the white paper Jon Ranson, Dolly Perkins, and Chris Scolese were preparing to present to Ghassem Asrar on data processing efficiencies that the team has achieved. The presentation should highlight steps the team has taken, and he would like Masuoka to provide him some numbers on how V2 allows us to make better use of our resources. Masuoka commented that they had ported PGE06 to the Linux systems, and it executed in V2 in 15 minutes, as compared to 45 minutes in V1. King also reported that the Atmosphere team has identified and fixed one of the four known bugs in their cloud product (MOD06). The fix is not yet in production, but will be in time for the consistent year processing (hopefully with the remaining main issues solved as well).

## 2.6 Oceans Update

Esaias reported that there would be a MODIS presentation at the upcoming NASA Ocean Color Meeting that will be held in San Diego, CA in May. He has been having discussions with Chris Brown at NOAA, and Brown is excited about using Direct Broadcasts images for NOAA Coast Watch. Esaias thought that the

Direct Broadcast site he visited did not have the most current images. Murphy indicated they should swap URLs to see what the problem was.

Esaias also commented that Bob Evans is getting requests for software availability. Kempler responded that he had put together a brief proposal for how such requests should be handled. He indicated he would send the proposal around for the Discipline leaders to review. Masuoka commented that the issues and procedures for distributing software are under study, and the results are expected in the near term.

### **3.0 Action Items**

3.1 Discipline leads to meet to resolve the issue of beta-release code and science-quality code, and what we need to say about it.

Status: Open.

3.2 Masuoka to send Mark Gray a copy of the code-porting guide for MODAPS's transition to Linux.

Status: Open.